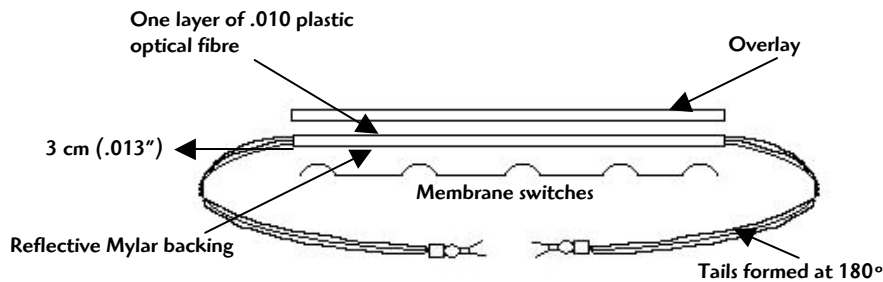


Fibre Optic Keyboard Lighting

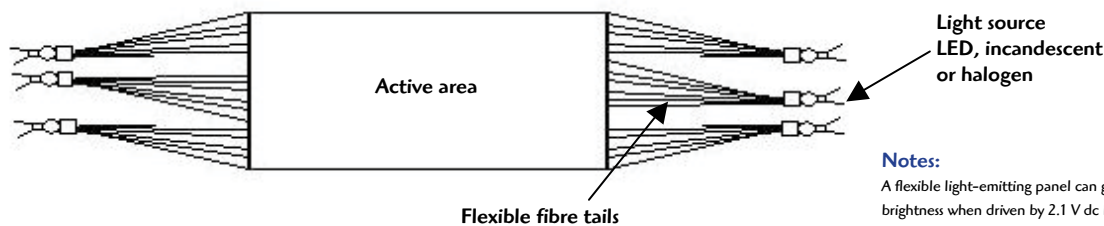
Illuminated keyboards can greatly simplify computer operations in low-light or no-light conditions. This flexible fibre-optic panel is a practical solution for a multitude of applications that are used in dimmed/dark environments. To achieve a fibre optic backlighting application, rows of fibres are bonded to a Mylar backing, than carefully abraded to emit light along their length. The un-bonded fibre tails, gathered into bundles, transmit light from a point source and emit the light evenly across the panel face.

With a thickness of only 0.013", the fibre optic panel can be placed between the overlay and its membrane or flat-panel switches, adding just two ounces of tactile pressure to the switch assembly. Unlike other techniques, this type of panel produces cool, uniform light and no electromagnetic interference. In tests, these types of panels have endured millions of actuations without failure.

Side view



Front view



Notes:

A flexible light-emitting panel can generate over two foot-Lambert of brightness when driven by 2.1 V dc LEDs. Incandescent or halogen lamps would make the application even brighter.

Features & Benefits

- Uniform Brightness
- Low Power From 2V DC, 30mA
- Thin (0.013" minimum) & Flexible
- Low Tooling, Unit, Assembly & Maintenance Cost
- EMI & Heat Free
- No Inverter Required
- Wide Temperature (-40°C to 75°C) & Humidity (0% to 100%) extremes

